

REMARKS

Claims 1-20 are pending in this application. Certain objections to the application have been made and claims 1, 10 and 11 have been rejected under 35 U.S.C. § 112 second paragraph. Claims 1-2 and 11-12 have been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,705,507—Boyles. Claims 1 and 11 have also been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,429,144—Wilk. Claims 3-4, 9, 13-14 and 19 have been rejected under 35 U.S.C. § 103 as being obvious in view of the combination of Boyles with various other references or reasons for rejection. All these reasons for rejection are respectfully traversed.

Drawings

Applicants respectfully submit that the drawings, when read in light of the specification, are sufficient to permit one of skill in the art to understand the invention. In view of certain claim amendments, it is respectfully submitted that certain features are no longer affirmatively claimed and therefore need not be shown. Applicants wish to propose either adding labels or reference numerals to the drawings, but wish to confer with the Examiner in order to expedite the process of making such changes and for this reason, among others, have requested an interview as set forth above.

Claim Rejections 35 USC § 112

Claims 1, 10 and 11 have been rejected under 35 U.S.C. § 112 second paragraph. This reason for rejection is respectfully traversed. In view of the amendments, set forth above it is respectfully submitted that the informalities noted in the Office Action have been overcome. In particular, claim 1 has been amended to differentiate between the claimed structure implanted in a patient and the structure of the heart of the patient itself. Withdrawal of this reason for rejection is therefore respectfully requested.

Claim Rejections 35 USC § 102

Claims 1-2 and 11-12 have been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,705,507—Boyles. Claims 1 and 11 have also been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,429,144—Wilk. Both these reasons for rejection are respectfully traversed. In view of the amendments set forth above it is respectfully submitted that claim 1 now defines structural elements neither disclosed nor suggested in Boyles or Wilk. Neither Boyles nor Wilk disclose a structure that punctures a septum, but instead both disclosed apparatus that permits flow from the left ventricle into the aorta. Applicants respectfully submit that the term “cardiac structure” recited in claim 1, when read in light of the specification, means one of the ventricles, atria or other defined volumes within the heart itself and that neither the aorta, as seen in Boyles or a coronary artery, as seen in Wilk.

For these reasons, and reasons that may be readily discussed in the requested interview, it is respectfully submitted that the invention defined by claim 1 is neither disclosed nor suggested by either reference. Therefore, it is respectfully submitted that claim 1 and all the claims that depend from it are now in a condition to be allowed.

As to claim 11, it is respectfully submitted that the inclusion of the limitations of claim 12 renders this reason for rejection moot.

Claim Rejections 35 USC § 103

Claims 3-4, 9, 13-14 and 19 have been rejected under 35 U.S.C. § 103 as being obvious in view of the combination of Boyles with various other references or reasons for rejection. This reason for rejection is respectfully traversed. In view of the amendments set forth above and the reasons expressed with reference to claim 1, it is respectfully submitted that none of the asserted reasons for rejection under 35 U.S.C. § 103 cure the deficiencies of the Boyles and Wilk references discussed above and therefore, even if it were proper to combine such references with either of the base references, such combination would not disclose or suggest each and every feature of claim 1. Therefore, it is respectfully submitted that claim 1 and all the claims that depend from it are now in a condition to be allowed.

Allowable Subject Matter

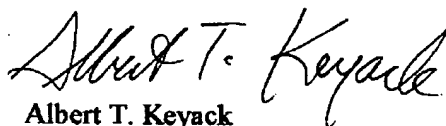
The Office Action indicates that claims 5-8 define patentable subject matter and would be allowed if rewritten to overcome the rejection under 35 U.S.C. § 112. Applicants gratefully acknowledge this indication of allowable subject matter and have amended claim 5 to more clearly define the invention. Review of these amendments and allowance of claim 5 and all claims depending from claim 5 is therefore respectfully requested.

The Office Action also indicates that claims 12-20 define patentable subject matter and would be allowed if claim 12 were rewritten as an independent claim. Applicants gratefully acknowledge this indication of allowable subject matter and have amended independent claim 11 to include all the limitations of claim 12, which should be cancelled. Review of these amendments and allowance of claim 11 and all claims depending from claim 11 is therefore respectfully requested.

Conclusion

For all these reasons, it is respectfully submitted that the present application, including the amendments set forth above, is now in a condition to be allowed. Notice to this effect is earnestly solicited.

Respectfully submitted,



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a puncture in a septum in the cardiac structure communicating with an area outside said first portion, whereby a volume of blood sufficient to reduce pressure in said first portion ~~is released~~ flows across said septum.

2. (Twice Amended) The apparatus of claim 1, wherein the first portion comprises the left ventricle and said pressure is the end diastolic pressure in a patient heart, wherein said shunt is implanted in a septum defining the left ventricle and wherein the shunt communicates with the left ventricle, whereby a volume of blood is released flows across the septum from the left ventricle to reduce the end diastolic pressure.

5. (Twice Amended) Apparatus for decreasing pressure in a left ventricle of a patient comprising a shunt implanted in a septum communicating with an area outside said ~~first portion~~ the left ventricle, whereby a volume of blood sufficient to reduce end diastolic pressure in a patient flows through the shunt, wherein the shunt comprises a semi-passive check-valve comprising a valve selectively activated by an external signal and communicates with to permit flow from the left ventricle, whereby a volume of blood is released from the left ventricle sufficient to reduce the end diastolic pressure.

10. (Amended) The apparatus of claim 8 9, wherein said tubular element is comprised of a biologically inert non-metallic material.

11. (Twice Amended) A method of decreasing pressure in a first portion of a vessel of the cardiac structure of a patient comprising the step of:

- (a) puncturing a vessel wall between the first portion and another portion; and
- (b) implanting a shunt communicating with an area outside said first portion,
~~whereby a volume of blood sufficient to reduce pressure in said first portion is released,~~

wherein the first portion comprises the left ventricle and said pressure is the end diastolic pressure in a patient heart, and

wherein said shunt is implanted in a septum defining the left ventricle and communicates with the left ventricle.

whereby a volume of blood is released from the left ventricle sufficient to
reduce the end diastolic pressure.

Please cancel claim 12.